AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0047] with the following amended paragraph:

[0047] Output 116 is input to timer controller 130. If output 116 is set to logic "one", which occurs when the magnitude of the ionization signal 100 is above threshold 115, the timer controller 130 sets its timer enable flag output 136 to logic "one" and sets enable state 117 to zero (330). Timer enable flag output 136 is input to timer 120. Setting timer enable flag to logic "one" starts timer 120 (332). Next, the system 60 queries "Is the ionization signal 100 greater than threshold 115?" (335) The timer 120 continues to count the pulse duration as long as the magnitude of the ionization signal 100 is greater than threshold 115 (337). When the magnitude of the ionization signal 100 falls below the threshold 115 (338), the first comparator's 110 output 116 is set to logic "zero" (340) which disables the timer 120. The timer's 120 output 125 is compared with a second threshold 135 or the time duration threshold 135 in comparator 140. The system 60 queries "is the timer output 125 greater than the threshold 135?" (342). Threshold 135 is set to 60 to 90 percent of the minimum spark duration of the given ignition system. For an ignition system with minimal spark duration equal to 0.3 millisecond, threshold [[140]] 135 can be selected between 0.18 to 0.27 millisecond. If the answer is no, then the timer output 125 is below the threshold 140 and the secondary 18 is open. The powertrain control module 95 sets the open secondary flag 99 to "Yes" (345). If the answer is yes, then the secondary 18 is not open and the powertrain control module 95 sets the open secondary flag 99 to "No" (350).